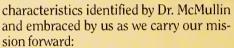




Bob Duncan Executive Director

While a number of experts have written on the subject of organizational strength, we had only to look inside Virginia for some homegrown advice from Virginia Tech's own Dr. Steve Mc-Mullin and his work on the characteristics of effective state wildlife agencies. I would like to share those



- ◆ Be proactive. We will continue to look ahead, scanning the horizon for opportunities as well as challenges. The James River fish passage, prohibition of wildlife feeding laws, and CWD sampling stations are good examples of our commitment to doing so.
- ◆ Manage according to a biologicallybased model. The underpinnings of this agency were firmly established upon the North American Wildlife Conservation Model. That model, based in science, directs an approach that has now been codified by law. Our "litmus test" of any management decision must always pivot upon the answer to the question, "How does this affect the resource?"
- ◆ Remain close to our constituents. We will continue to strive for exemplary customer service—to listen to our customers and respond to their needs. Our hunter satisfaction survey and recently formed advisory committee of conservation leaders emphasize our commitment to this.



- Garner strong public support. We must never lose sight of the need for the public to understand who we are and what we do. A clear mission must remain at the forefront of our daily actions and communications.
- ◆ Maintain our missionary zeal. Many of our employees consider their iob "a calling."

It has never been about putting in the hours, but rather, an extension of who they are as people. Their enthusiasm permeates all that we accomplish, and it is my honor to allow our staff to do what they are so good at doing.

To this list several points that focus on *internal* operations and growth should be noted: secure a stable team of respected and knowledgeable leaders; encourage our staff to try new things and not be afraid of making mistakes; and, demonstrate our appreciation of our employees, even in small ways, every day.

Adopting these principles and becoming proficient at them will mean we are well on our way to achieving our full potential as an agency, one that is respected by the public and our peers. We will then be best prepared to protect the wildlife resources that we are charged with protecting. This strong foundation along with our ability to embrace change—to remain relevant—are key to our future success.

COMMONWEALTH OF VIRGINIA Bob McDonnell, Governor

HUNTING & FISHING LICENSE FEES

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Mission Statement

To manage Virginia's wildlife and inland fish to maintain optimum populations of all species to serve the needs of the Commonwealth; To provide opportunity for all to enjoy wildlife, inland fish, boating and related outdoor recreation and to work diligently to safeguard the rights of the people to hunt, fish and harvest game as provided for in the Constitution of Virginia; To promote safety for persons and property in connection with boating, hunting and fishing; To provide educational outreach programs and materials that foster an awareness of and appreciation for Virginia's fish and wildlife resources, their habitats, and hunting, fishing, and boating opportunities.

Dedicated to the Conservation of Virginia's Wildlife and Natural Resources

AUGUST CONTENTS



About the cover: The American kestrel, North America's smallest and most colorful falcon, is shown here with a grasshopper in its talons. This behavior of targeting prey on the ground distinguishes the kestrel from other falcons. ©Maslowski Photo

The Incredible Journey of Hope

by Curtis J. Badger Scientists are learning more about the amazing migration of whimbels.

Traveling With a Dog by Clarke C. Jones Make your next hunting adventure a success for you and your dog.







Jewel of the Potomac by Glenda C. Booth All sorts of wild critters hang out here—just beyond the nation's capital.

6 Return of the Brookie to Lower Stony Creek by Bruce Ingram

Anglers of Giles County have something remarkable to smile about.

Finding Wilderness in Virginia's Urban Jungles by Cristina Santiestevan Wildlife often thrive in urban zip codes.

if you know where to look.

Our Smallest Falcon Needs Help

by Jo Ann Abell

Once a common sight, the American kestrel is in decline.

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rue hope is swift, and flies with swallow's wings," Shakespeare wrote in King Richard III. Today we could amend that to say that Hope not only is swift, but strong and resilient, and flies with whimbrel's wings.

Our modern Hope would be a bird of the marsh and tidal flats, a large brown shorebird fond of fiddler crabs, a part-time resident of Virginia that regularly makes the commonwealth a rest stop on an annual journey of astonishing reach. Hope is a whimbrel, so named by biologists in May 2009 after they trapped her on a tidal marsh called Box Tree in Northampton County. There, fitted with a satellite transmitter to her back she was released to resume a journey that would surprise even veteran ornithologists who have long been aware that these birds typically fly long distances when migrating between breeding grounds in the

Hope was tracked for nearly a year, and in April of this year returned to the same tidal flat at Box Tree where she had been fitted with the transmitter in 2009, which amazingly was still broadcasting a signal. In eleven months she

had flown from Virginia to Hudson Bay in Canada, and from there to the Northwest Territories on the Beaufort Sea for the summer. In August she returned to Hudson Bay, and from Southampton Island flew nonstop to St. Croix in the U.S. Virgin Islands, where she spent the winter. On April 11, 2010 she returned to Box Tree, completing a journey of 14,107 miles. The "Audacity of Hope," indeed.

"We knew that whimbrels flew long distances, but we had no idea they went west to the Northwest Territories," said Fletcher Smith, a research biologist with the Center for Conservation Biology at the College of William and Mary. "It was as-



Whimbrels feed almost exclusively on fiddler crabs of the tidal flats.

sumed in Virginia that the eastern birds flew north to the James Bay and Hudson Bay breeding grounds. The first bird we put a transmitter on flew non-stop from Virginia to the Northwest Territories, which is the breeding grounds of the western race of whimbrels. No scientist would have even guessed that the East Coast harbored a percentage of the population of the western breeding whimbrels. That was a scientific breakthrough."

The Center for Conservation Biology began tracking whimbrels in 2008 in cooperation with Virginia Commonwealth University and the Virginia chapter of the Nature Conservancy. Six birds were fitted with 9.5-gram solar powered transmitters, and two of them flew to western breeding grounds. "This was a complete surprise," said Smith. "This family of curlews is known for flying long distances, but no one would have guessed East Coast to West Coast."

The study also demonstrated the birds' amazing fidelity to migratory stopover sites. Hope, tracked for the entire migratory cycle, returned to the same tidal flat where she had been trapped the previous year. Her



journey further reveals the importance of the Virginia coast to migratory species such as these shorebirds. Whimbrels feed almost exclusively on fiddler crabs, small crustaceans that live on the banks of salt marshes and on tidal flats. The down-turned bill of the whimbrel is designed to probe the burrows of fiddler crabs, and the bird is also adept at chasing and catching their prey as the crabs feed on the flats.

Much of the Virginia coast is protected as national wildlife refuges or state natural area preserves, or through private conservation efforts by The Nature Conservancy—which owns about 40,000 acres of barrier islands and tidal marsh. So fiddler crab habitat is protected here in this im-

portant migratory stopover. What worries Smith and other research biologists is that the overall population of whimbrels is down. Since whimbrel surveys began on the Virginia coast in the mid-1990s, the birds have declined in number by 50 percent. "Not much has changed on the Virginia coast in that time," said Smith, "so there probably have been changes either on the breeding grounds or wintering grounds. There has been a steady decline of more than three percent per year, and it's not a matter of the birds shifting migratory range. It is a true decline."

Whimbrels feed almost exclusively on this crab regimen, except when they are on breeding grounds in the north, where there are no fiddlers. If

habitat is disturbed on their wintering grounds in the tropics, and if fiddler crab populations fall, whimbrels will likewise decline.

"These birds are fiddler specialists," said Smith. "The bill is the same length and shape as the fiddler burrow, so if it's cold and the crabs are not foraging, the bird can reach in and get it. If the crab is muddy, the whimbrel



Whimbrels light up the sky along Virginia's Eastern Shore each May, as the birds make their annual spring migration north. This year they continued a flight to the Northwest Territories, Canada.

AUGUST 2010



Tracking Whimbrels

Whimbrels are tracked using tiny, 9.5-gram transmitters attached to the backs of the birds. The transmitter is attached with a Teflon ribbon harness, and it is positioned between the wings where fat does not accumulate. So if the bird loses weight, the harness will not become loose.

Each transmitter is equipped with a small solar panel, and it broadcasts a signal on a cycle of 5 hours on, 24 hours off. The unit recharges during the off cycle. During the five hours on, if satellites are in the correct position the transmitter broadcasts a signal which is triangulated between them, and the position is picked up by a receiver on the ground. Battery life is said to be at least nine months, but the unit on Hope has been functioning for over a year. The process is not as precise as a Global Positioning System, but it can allow researchers to track a bird's position to within about 150 meters, which is fine for long-range tracking.



The map above shows Hope's non-stop 3,200-mile migration route from the Eastern Shore of Virginia to breeding grounds in the MacKenzie River Delta of the Northwest Territories of Canada this spring. Also shown are previous migration events, including the non-stop 3,800-mile flight during the fall of 2009 from Southampton Island in northern Hudson Bay to St. Croix, U.S. Virgin Islands.

will take it to the water and rinse it off before eating it."

Whimbrels arrive on the Virginia coast in early to late April and de-

part by early June, so there is a narrow window when all of the birds on the Eastern Shore will be leaving. Birds that arrive early in the migra-



Scientists at the Center for Conservation Biology work around the clock to trap, weigh, and band the birds during their brief stopover in Northampton County.



Banded whimbrels are released by enthusiastic researchers to continue their amazing journey north.

tion will stay longer, and late arrivals will have a briefer stay. While they are here, they have one goal, and that is to gain weight to fuel the migration and begin breeding. Smith and his colleagues trap birds, weigh, band, and examine them.

"We caught 23 birds early in the season and the mean weight was 330 grams," Smith reported. "Birds captured later in the period, when we begin attaching satellite transmitters, have a mean weight of 550 grams. So the percentage of weight gain is tremendous. After a bird has been here for three or four weeks feeding on crabs, it is very fat. The fiddlers are an almost unlimited resource, and the birds need them. Whimbrels heading to the western breeding grounds are facing a flight of more than 4,000 miles, which is quite a feat."

Smith believes that fat put on at the staging grounds in Virginia is important not only to fuel the trip, but to begin breeding activities in the north, where the nesting female is not free to forage, and where the males must be fit to attract a mate. "The amount of fat they put on in Virginia is extremely important for breeding success after they arrive in the north," he says.

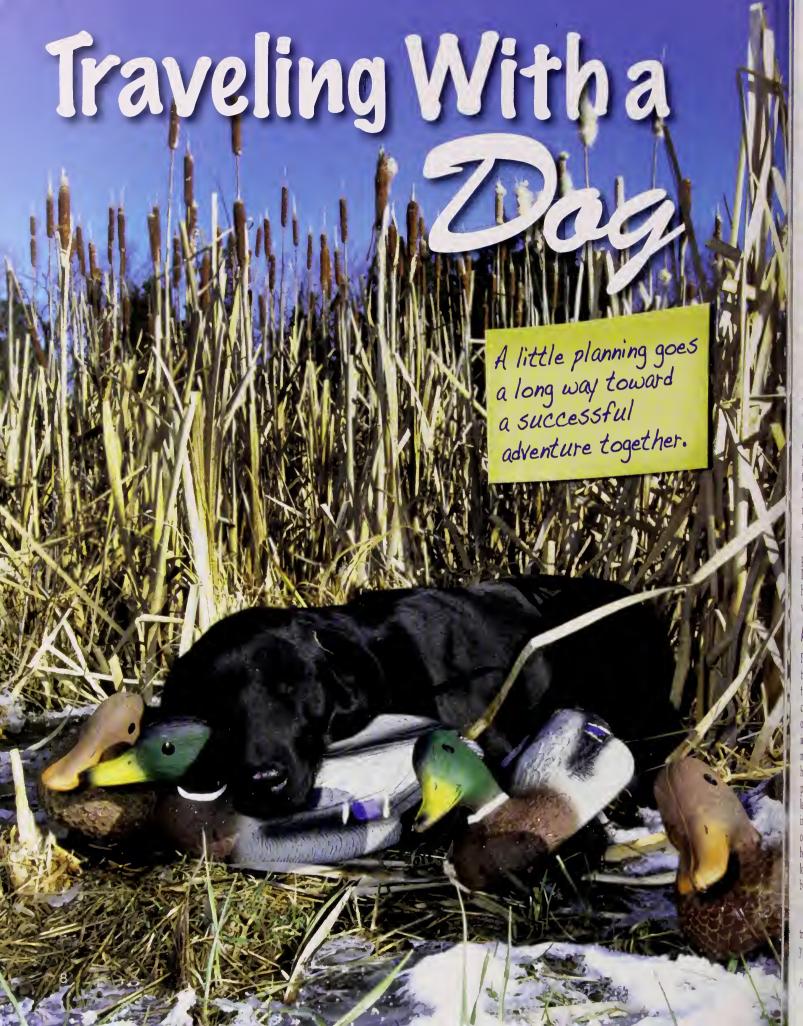
To the casual eye it seems an unlikely relationship: fiddler crabs foraging on a mud flat, the male waving its huge claw as part of a mating ritual, and then comes a bird that will be on the Virginia coast for perhaps three or four weeks, its bill the exact length and shape of the crab burrow. And the birds will feed until they can eat no more—a "digestive bottleneck" Smith calls it—and then they will be gone, leaving the crabs to contend with the resident clapper rails and night herons. But on closer examination, it all makes sense, as, in most of nature, it usually does.

Curtis Badger, whose most recent book is A Natural History of Quiet Waters (UVA Press), has written widely about natural history and wildlife art. He lives on Virginia's Eastern Shore.



The whimbrel's bill is uniquely fitted to the burrow of a fiddler crab.

AUGUST 2010



by Clarke C. Jones

ogs have always been there for me. They were my childhood friends during those lonesome times when, growing up in a rural neighborhood, my only other companion was my imagination. They were a comfort after my father taught me as a child that a branch from the forsythia bush had uses other than in floral arrangements. For other people, dogs have been there to protect the homestead, tree squirrels, chase rabbits, and flush quail. They help mend broken hearts and can sometimes bring people together. Mongrel or pedigree: Once they have bonded with you, their loyalty and affection seem limitless and, as we age, we realize how rare those traits are.

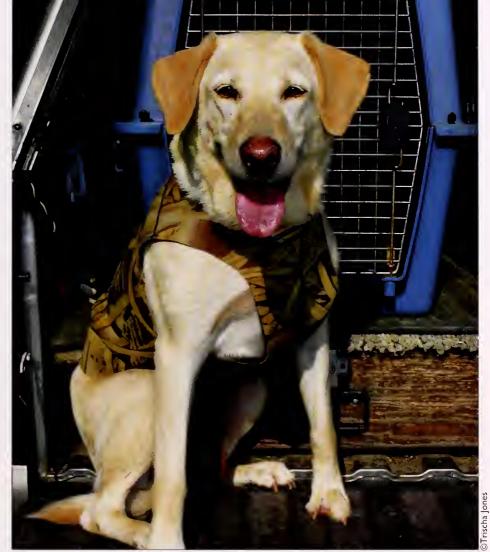
Separation anxiety is not just a dog trait. More and more people find it difficult to leave a dog home when taking a vacation or hunting trip. Many hotels and B&Bs have recognized a growing trend of those who want to travel with their best friend. Thanks to the internet, finding such places has been made relatively easy. If that is part of your plan this year, here are some tips to make traveling with your pet easier.

A Crate is Key

Planning is the key to any successful trip, so make sure your pet is crate trained and likes to ride in a car—long before you take your dog on a vacation or hunting trip. This is important for a number of reasons, not the least of which is that, while hotels may accept pets, most will expect your dog to be crated when it is left unattended in your room. Imagine you are the cleaning person who opens the door to your suite only to have a 90-pound bundle of chocolate love come bounding up and plant a big kiss on you!

Some people are put off by that.

It is also much safer for your pet to travel in a crate, because it protects your animal from being thrown



Crate training your dog at a young age will open the doors to long-distance hunting trips and the possibility of a hotel stay.

around should your vehicle have to make a sudden stop. If you are hunting with your dog, more than likely it will return wet or muddy. A crate helps ensure that other luggage and food items stored in your car will not be compromised. Your pup should be trained to willingly go into a crate at a very early age. Teach it that a crate is a place where it may find a treat and that a crate is its own secure space. If your car does not have room for a crate, there are covers designed to protect your seats and harnesses that will protect your dog.

Car Travel

Some dogs are not fond of riding in a car. Again, try to get your pup to enjoy the experience early on by praising and rewarding it when it gets into the vehicle. Make your first

trips in the car short ones that end with a pleasant experience—such as a walk in the park followed by treats when it re-enters the car. If a dog's only experience is riding to the vet's office or the kennel, it will soon learn the car leads only to something unpleasant. You would feel the same way if your only car rides as a child were to the dentist. Always reinforce with praise when your dog behaves in a manner you like. It is so simple, but it is often overlooked.

Remember that in summer the temperature inside your car can heat up rather quickly, even when the windows are cracked open. Park in the shade and make your stops very short ones. If you have to make a stop and you are traveling with someone, one of you should stay in the car to monitor the car's temperature.





Don't forget the First-Aid kit when packing up dog food and other necessities. And a little courtesy to staff and other quests helps ensure that a hotel remains pet friendly.

Airplane Travel

Perhaps you are like a friend of mine, Alec Woolfolk from Powhatan, who flies with his dogs to faraway hunting locations. He notes that advanced planning is important and reminded me that, "The choice of air carriers that will fly a dog are limited...," and, "With smaller planes, if the airline will take a dog they sometimes are limited to one dog in the cargo area of each flight." Alec advises that, since 9/11, you should, "Make sure your dog crate is washed and clean before the flight." He points out that if you have shotgun residue on your dog crate from handling spent shells, you risk getting unwanted attention by TSA officials.

Boat Travel

Some people travel with their dogs on a boat. If your dog is naturally drawn to water, it won't be long before you will see it paddling around next to you. You had better have a plan as to how you are going to get your dog back in the boat once it is out of it. Putting around with your dog in a jonboat on one of Virginia's lakes or streams is one thing, but if you are on a sailboat of some size in big water, you could have a problem. Be aware that your dog will require a break periodically. You need to do some planning ahead of time before you and your pooch take to the highways or the high seas. Plan for stops along the way at 3- to 4-hour intervals or make other appropriate arrangements.

Do Your Homework

Let's assume your dog is crate trained and wants to go with you on trips. The next thing that is essential to know is something about where you will be going. Hunting the rough wheat stubble of the Dakotas or the rocky terrain of other western states is very different from hunting the soft, sandy bottomlands of southeastern Virginia. Make sure you take along foot and chest protection for your dog when hunting these desti-

nations. Nothing is more disappointing than taking a trip far from home, only to find your pup foot-sore or bloodied and unable to perform for the rest of the time because it was not prepared for the terrain it had to work.

Not only should you know something about the terrain where you are hunting, know something about what else lives in that territory. Keep in mind that having your dog perform a water retrieve in a quiet pond in Virginia is a *little* different from waters found in other southern states, where alligators may be looking for an easy meal.

It is always a good idea to know the location of the best veterinarian's office when traveling to a particular destination. Accidents do happen, and there is nothing that adds more excitement to a hunting trip than running around in a panic trying to find a vet when your dog has been injured. Whether going hunting or on a vacation with your pooch, always carry a First-Aid kit. Some vets will also board your dog if a kennel is not nearby or a hotel room is not dog friendly.

Nevertheless, most places that board dogs will require up-to-date inoculation records of your pet. If they do not, you may want to think twice about leaving your dog there. Even if you are smart enough to fax your dog's shot records to the kennel or vet ahead of time, it is a good idea to carry them with you on your trip.

Hotel Expectations

There are a number of websites that make finding dog-friendly locations much easier. Expect to pay an extra fee for allowing your dog in a room. I have found the charge could range from zero to as much as seventy-five dollars. Because a hotel is listed as pet friendly, does not mean there will not be a size or weight restriction on a dog they will allow in the room. You should also remember that just because one hotel in a hotel chain is pet friendly does not mean *every* hotel in that chain is pet friendly. When booking your reservations,

make those types of inquiries. Policies can change with new management.

When you stay in a hotel with your dog, request a first-floor room near an exit. This makes it easier on everyone moving the dog crate into and out of the room and also accommodates the likely need to go outside in the middle of the night. It pays to be courteous to the rest of the guests and to the people cleaning your room. Not every guest is a pet lover and wants your dog to give them a friendly sniff. Keep tight control over your dog when walking through the halls or on an elevator of the hotel. Bring your own towels with you to dry off your dog and wipe its feet after you have been hunting or at the beach. Don't embarrass yourself or your dog by leaving a pile of muddy hotel towels lying on the floor for someone else to deal with. This only raises the extra charge for a dogfriendly room for your next visit. Brushing your dog before bringing into the room also helps keep it comfortable and the room a bit cleaner.



Pack a leash, your dog's normal food supply, plenty of water, and refillable plastic bottles. A collapsible dog bowl is a great item to carry along. It takes up very little room and is lightweight. If you drink bottled water, occasionally save the plastic bottles and their lids. You can refill them in the hotel room or service station. And be a good neighbor or tourist whenever you travel by carrying clean-up bags with you.

Finally, if you are going be doing a lot of hard hunting, spend the time to get your dog in shape. Nothing is more disappointing than to drive for a few days to get to that hunting destination and find your retriever or bird dog is worn out after the first day in the field and will need a couple of days of recovery before it can go out again.

Make a note to get yourself in shape as well. Dogs may be man's best friend but they are lousy at CPR. □



Clarke C. Jones spends his spare time with his black Labrador retriever, Luke, hunting up good stories. You can visit Clarke and Luke on their website at www.clarkecjones.com.



by Glenda C. Booth

wo slaty skimmer dragonflies zoomed around in figure eight formations, perfectly synchronized and fighting over the ideal twig from which to entice a female, ignoring their human onlookers. "They zip around like fighter jets," said Kevin Munroe, manager of Huntley Meadows Park. Introducing these dark blue entomological wonders of Accotink Bay Wildlife Refuge, he invoked an apt analogy for nature's whirligigs, flitting about the shallow waters of one of the nation's busiest military installations. Accotink Bay Wildlife Refuge, at 1,480 acres, sits smack in the middle of the U.S. Army's 9,000acre Fort Belvoir—a mere 15 miles south of Washington, D.C., on the Potomac River in Fairfax County.

The people in the thousands of vehicles that crawl by Belvoir daily are probably not pondering dragonfly mating rituals. They are more likely wondering what 26,000 civilian and military personnel are doing behind the guarded gates. Belvoir provides "installation support, mobilization requirements, military operations, and contingency/force protection missions," official documents explain. It is home to 3 major command headquarters and elements of 10 others, over 25 Army agencies, elements of the Army Reserve and Army National Guard, many Department of Defense (DOD) agencies, a Marine Corps detachment, a Navy unit, an Air Force aviation support unit, and a Department of the Treasury agency.

"No other Army installation in the world can compare to Fort Belvoir and its singular mission to provide logistical, intelligence, and administrative support to such a diverse mix of commands, activities, and agencies," trumpets the website.

Over time, the post's 1,400 buildings have housed everything from daycare centers to fast food restaurants, to chapels, to dental offices and an arts and crafts center. Recreational offerings include a bowling alley, archery range, fitness center, gym, soc-



Beavers are active throughout the wildlife refuge.



Wetlands at Accotink Bay attract a stunning assortment of birds and waterfowl. Over 30 ospreys nested here in 2009. Photo ©Wilamena Harback

cer fields, indoor pool, and more. But today, construction cranes loom as heavy trucks rumble through because Belvoir is being BRAC'd. In acronymladen "governmentese," BRAC is short for base realignment and closing.

The DOD is "realigning" 19,000 employees, bringing 3,400 to Belvoir's main post where 26,000 now work. A

new state-of-the-art, 120-bed hospital is rising. Belvoir's transformation is bustling to the tune of \$4 billion (billion), gaining 6.2 million square feet of new facilities and seven million square feet of new parking spaces, all to be completed by September 15, 2011, as mandated by Congress.

The dragonflies don't care.



Fort Belvoir hunting options include archery seasons for deer and spring gobbler, and a waterfowl season in the fall.

Open to the Public

Belvoir hosts monthly, nature-oriented programs for the public subject to size restrictions. Refuge managers also honor requests from school, college, scouting, and other groups.

All hunters must register with Belvoir and qualify with their archery tackle before hunting on the post. Hunters, both military and non-military, are allowed to hunt the same land and can "sign out" any of the approved hunting areas. Anglers must have a state fishing license and follow all state regulations. Two new fishing piers are being built.

Hunting and fishing schedules and areas can be restricted if bald eagles are nesting or if the activity could interfere with military exercises.

Go here for information: www.belvoirmwr.com/hunting-odr/index.html.

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Beautiful to See

The Fairfax family named their 18th-century plantation Belvoir, "beautiful to see." Accotink Bay Wildlife Refuge is testament to the name still today. Fort Belvoir's managers take environmental stewardship seriously. According to their master plan, "The abundance of natural and cultural resources on Fort Belvoir provides an unparalleled opportunity for the Army to demonstrate how environmentally sensitive, planned development can enhance mission effectiveness while preserving the natural and cultural heritage."

Belvoir's newspaper is "The Eagle." Fittingly, the sleek new hospital is topped with white wing-like, "swooped" roofs, inspired by Belvoir's and the nation's symbol—the bald eagle.

How to Visit Accotink Bay Wildlife Refuge

The public must enter Fort Belvoir through Tulley Gate from U. S. 1 and show a driver's license. There are three access points to the refuge: The Pohick Loop Trail on the right before the Vehicle Processing Center (VPOC); the Beaver Pond Trail at the VPOC; and the Basin Trail accessed via Warren and Swift roads. There's an 11-mile trail, parking lots at 3 trailheads, information kiosks, and interpretive signs.

AN OASIS AMID THE DIN

Tucked away in this buzz of activity is the Accotink Bay Wildlife Refuge, a relatively unspoiled expanse of deciduous forests, meadows, tidal wetlands, river, streams, and ponds through which thread eight miles of trails.

Native Americans lived and fished here. Colonialists "squatted" and, in the process of settling in, deforested the land and depleted the soil. Later came farming and timbering operations, until 1915 when the Army launched an engineering school which expanded multifold throughout the 20th century.

In 1979, Belvoir's managers set aside 460 acres to protect sensitive habitats and provide environmental education and passive recreation, a plot that over time they more than tripled in size. Straddling two physiographic provinces, the Coastal Plain and the Piedmont, Belvoir and the refuge have 17 native ecological community types, including 7 that are ranked as uncommon to extremely rare. The refuge's shoreline remains undeveloped.

A site on DGIF's Birding and Wildlife Trail, the refuge supports 300 bird, 57 fish, 27 amphibian, 32 reptile, and 43 mammal species. There are several rare plants and at least one rare animal species, *Stygobromus phreaticus*, a groundwater amphipod that may be endemic to the base.

The Christmas bird count started here in 1911. The first cinnamon teal recorded in the state was seen at Belvoir in 1998. The river, wetlands, and inlets attract hundreds of waterfowl, like American black duck, Eurasian wigeon, ruddy duck, merganser, bufflehead, and black scoter. Spring migration brings warblers and woodcock displays. Accotink is one of the few places in Northern Virginia to witness migrating shorebirds. Over 30 ospreys nested here in 2009. Bald eagles thrive year-round in four "eagle management areas."

"Eagles love to come down and seat coots," quipped John Pilcicki, Belvoir's wildlife biologist.

River otters, beavers, red and gray foxes, groundhogs, coyotes, and spotted red salamanders make their home here. And moving at a slower pace, spotted, box, painted, musk, and slider turtles bask. Several species of frogs provide a springtime chorus.

Fifty-seven species of fish have been identified, including blue catfish, yellow perch, striped bass, and

largemouth bass.

"Accotink Bay is one of the best places for birds, native plants, reptiles, and insects in the D. C. area," said Munroe. "You'll see things here you won't see in all of Fairfax County. It's big and not fragmented, at least for Northern Virginia."

A PLACE FOR SERIOUS SCIENCE

The refuge attracts researchers. Dr. Peter Marra, a Smithsonian Institution senior scientist, is trying to determine where wood thrushes that breed and raise their young in the refuge spend their winters. Accotink has a



Wildlife watchers may be treated to sightings of the elusive river otter.

"good population of wood thrushes and lots of forest," said Marra. Using mist nets, his team captures the birds in the spring and outfits them with geolocators that record sunrise and sunset. They then try to recapture the birds the next spring and read the data to interpret the birds' migration route. Marra, whose work is funded by the DOD, also studies isotopes—chemicals that occur naturally in the environment—by sampling birds' feathers. He hopes to help the Army manage for species conservation.

Dr. Richard Kraus, a George Mason University fish ecologist, is analyzing water quality and the impact of sewage plant discharges on anadromous fish by surveying plankton and the spawning runs of river herring in Accotink and Pohick creeks, a project with a 25-year history. Kraus is pleased with the return of vegetation which provide good nursery sites and higher fish survival rates. "Submerged aquatic vegetation is an indicator of cleaner water," he explained.



Wood thrush at Accotink are under study to determine their movements and migratory behavior.

THE BRAC BOON?

Though locals may complain that BRAC will bring traffic headaches, it could be a boon for the environment. "BRAC's been good to me,"

said Natural Resources Branch Chief Dorothy Keough, because much of the development must be mitigated. For example, last year Fort Belvoir constructed two stream restoration projects totaling 2,700 linear feet. More projects are under design for 2010. Belvoir is also improving habitat for Partners in Flight priority bird species to support prairie warbler, field sparrow, eastern towhee, and wood thrush.

Located between county-owned Huntley Meadows Park to the north-west and Mason Neck State Park and National Wildlife Refuge to the south, Accotink Bay is a critical link at the mid-point of a 15-mile wildlife corridor squished between dense subdivisions. We must stop managing each parcel piecemeal, in isolation," explained Keough. "We need connectivity to have healthy ecosystems. Today's thinking is better than it used to be," she added.

Invasive plants like kudzu and phragmites present a perpetual challenge. And invasive snakehead fish weighing up to 13 pounds have been spotted.

"Two snakeheads fell out of the sky," Pilcicki chuckled, explaining that overly optimistic ospreys dropped them.

Keeping the refuge healthy requires focus. "Uses must be compatible with conservation. The cornerstone of conservation is land management," Keough asserted.

Glenda Booth, a freelance writer and legislative consultant, grew up in Southwest Virginia and has lived in Northern Virginia 37 years, where she is active in conservation efforts.



Nets placed in Pohick Creek will capture river herring during their spawning run, allowing researchers to assess their overall health.

Additional Resources

Department of Defense (DOD) www.belvoir.army.mil/

DGIF Birding & Wildlife Trail www.dgif.virginia.gov/vbwt/site. asp?trail=1&loop=CMN&site= CMN05

Partners in Flight www.partnersinflight.org



story and photos by Bruce Ingram

o understand the magnitude of how much a section of lower Stony Creek in Giles County has been transformed, consider these three 'snapshots' of the 304-acre property through which the stream flows.

In 1999, the U.S. Forest Service purchased the land, which consists of a historic two-story lodge, a large barn, expansive fields where cattle had long grazed, and 1½ miles of Stony Creek. Cattle had caused significant erosion along the stream; the banks were largely barren; the streambed was wide and shallow; and because water

temperatures were 10 degrees higher than they were on the national forest section of the creek upstream, trout were virtually non-existent.

By the fall of 2007, the property now known as the Glen Alton National Forest Recreational Area (located off State Route 635) had changed little even though cattle had long since been removed. Scant streamside flora had returned. But that autumn, things began to change when the Southeast Aquatic Resource Partnership stepped forward with significant financial support. A partnership formed among the New River Valley Chapter of Trout Unlimited (TU), the U.S. Forest Service



The Glen Alton lodge under renovation will serve as an environmental education center geared to school children.



Cattle have been removed, vegetation is returning, and mats placed in key locations are stabilizing the banks.

(USFS), the Department of Game and Inland Fisheries (DGIF), and Virginia Tech to determine how best to improve the impaired stream. Upstream, Stony Creek hosts populations of native brook trout and those involved wondered: Could our state fish be returned to the waterway's lower reaches?

Flash-forward to late May of 2009, and I am fly-fishing for brook trout on the stream, accompanied by TU members Dr. Todd Lowe of Radford and Howard Williams of Blacksburg and wildlife biologist Jesse Overcash of the USFS. Williams lands the best fish of the day, a chunky 8-inch wild brookie.

I am amazed at the display of songbirds flitting about the creek and a riparian zone on the rebound. For the first time in years in western Virginia, I hear a parula warbler and also see or hear what birdwatchers call good—meaning relatively uncommon—avians such as cedar waxwings, common yellowthroats, and tree swallows.

Obviously, in a relatively short time Stony Creek has undergone a tremendous metamorphosis, and the story of how it did so is a lesson for us all on how to bring a waterway back to life. It is a lesson that can, hopefully, be repeated elsewhere in the Old Dominion.

* * *

Lowe and Williams are among many TU members who helped with the restoration and are excited about showing me the stream's improvements, as is Overcash. Our first stop is at a row of rootwads lining Stony Creek.

"Joe Williams and Larry Mohn decided where all in-stream structures would go, such as these rootwads," notes Overcash of the two fisheries biologists. "The DGIF deserves a lot of credit for designing the project and providing the fishery's expertise. Our role at the USFS was to obtain all the materials and machinery.

"Basically, we created a rootwad by using a front loader to push over a tree, and then cut the tree to about a length of 20 feet. Next we jammed the 20 feet of the tree back into the stream bank, leaving only the root system exposed. A row of wads helps to stabilize a bank and prevent erosion, cools the water, and also provides cover for trout and other aquatic and streamside creatures."

Our next stop is a *mat*, which is a soil stabilization device that is not unlike a traditional "welcome" mat in thickness, but much longer and wider and with many openings. Perennial rye grass has been planted



Todd Lowe checks the progress of a willow planted to help stabilize the bank and offer shade.



Jesse Overcash of USFS points to rootwads placed by DGIF fisheries biologists Joe Williams and Larry Mohn which have stabilized the bank, cooled water temperatures, and offered trout places to hide.



Perennial rye grass planted under mats along the bank helps stabilize the shoreline while providing traction for anglers like Howard Williams.

underneath and is now thickly growing in many areas, thus beginning to restore the banks and adjacent riparian zone

"I have Parkinson's disease and have trouble walking," comments Williams. "I couldn't fish Stony before the mats were put down because, when I would be walking along the bank, I would sink into the mud and have trouble getting out. The mats and the vegetation that has grown over them keep me from slipping and also protect the bank."

Willow, red oak, and white ash trees also adorn the shoreline, having been planted to eventually create a canopy to further cool the creek water. Enclosures surround the young trees to protect against beavers and deer, and Overcash points out a mature white oak that beavers have girdled. It will eventually die.

Lowe and Williams direct longing gazes at the pool with the mat and tree enclosures adjacent, and I well know what they want to do.

"Go ahead and make a few casts," I say.

Lowe quickly hooks and loses a trout, and I realize that they will be there for a while. So I ask Overcash to show me more handiwork.

Our next stop is at a lunker structure. Since it is under water and only partially visible, I have difficulty understanding the concept, which Overcash explains. Imagine an overturned table on its side with the legs pointed toward mid-stream. Then visualize long boards placed on the legs and, in turn, large rocks positioned on those boards.

"The lunker structure is another thing that Mohn and Williams recommended that would help stabilize



When cattle were removed from the property, native vegetation such as skunk cabbage could make a comeback.

the stream bank, and it has the added benefit of trout being able to hold under the boards and rocks," Overcash explains.

All in all, from the time the stream restoration began in September of 2008 until my visit, volunteers have placed over 50 various in-stream structures in Stony Creek. During the



The voracious appetite of the gypsy moth presents a challenge.



A wetland trail has been created at Glen Alton to offer close-up views and educate visitors about the importance of these wildlife oases.

fall 2008 semester, Virginia Tech students laid out structures as well, as part of a special study course devoted to Glen Alton. Ryan McManamay, former TU chapter president and current conservation director, taught the class, which gave students hands-on experience in fisheries restoration—including electrofishing population surveys, snorkeling studies, and stream restoration device design and installation.

In March of 2009, TU members and Tech volunteers working under the guidance of the DGIF and USFS planted approximately 100 trees over five acres of the stream's riparian corridor.

Indeed, the Glen Alton project is so impressive that the Virginia Council of TU selected this restoration activity as its best project of 2008.

"What has been accomplished at

Glen Alton is a great example of how natural resource agencies can work with schools and sporting organizations to improve wildlife habitat," said current TU chapter president Todd Lowe. "Fishermen, birdwatchers, hikers, and wildlife watchers can all enjoy themselves here. And we have more plans for the future."

Those plans include planting more trees and placing enclosures around them to thwart beavers and other pests; improving habitat downstream; and dealing with gypsy moth infestation. Like other areas in Southwest, gypsy moths have invaded much of Giles County. Jesse Overcash believes spraying for the pests may have to take place.

The DGIF will continue to sample water temperatures and annually look at fish populations through electro shocking.

The USFS is in the process of restoring the two-story lodge to serve as an environmental education center. Scouts and 4-H clubs will benefit, and school groups have made trips to Glen Alton. Lesson plans have been developed related to erosion, sedimentation, micro invertebrates, and trout. A wetland trail also exists.

And, of course, TU continues to fundraise. Already, some \$60,000 in cash and in-kind donations have been received, including private contributions and awards from TU's Embrace-a-Stream program.

* * *

As I prepare to leave, Overcash remarks that Blackburnian warblers, hermit thrushes, and black-billed cuckoos have made appearances at Glen Alton. After a long absence, so too has the native brook trout.

Bruce Ingram has authored many guidebooks, including his latest: Fly and Spin Fishing for River Smallmouths (\$19.25). For more information, contact him at be_ingram@juno.com.

For More Information
New River Valley Chapter
Trout Unlimited: www.nrvtu.org/



Howard Williams holds a native brook trout caught while visiting Glen Alton.

Finding Wilderness in Zarban Jungles

story by Cristina Santiestevan illustrations by Spike Knuth

ats, cockroaches, and pigeons. Anyone who believes this is the complete list of wildlife one can see in Virginia's cities is in for a pleasant surprise. Although there is no substitute for pure wilderness, a re-

markable num-

ber of animals

make their homes in our cities, towns, and suburban developments.

"I can find barred owls near my Arlington home," says Cliff Fairweather, naturalist for the Audubon Society of Northern Virginia. Elsewhere, Virginia's urban residents can expect to see peregrine falcons in Richmond (visit www.dgif.virginia. gov/falconcam to see them for yourself), black bears in Fairfax County, and coyotes in Virginia Beach. A small pond will attract toads, frogs, and

newts to suburban backyards. And, just about any cherished plant will bring hungry—and likely unwelcome—deer into well-tended gardens.

Fairweather defines urban as "a range of built environments from urban core to suburban," a broad definition that includes regions across the state, from Northern Virginia suburbs to Roanoke and Virginia Beach. And, as big as our cities are now, they are likely to only grow larger in the years to come. "Urban natural areas are becoming increasingly important for biodiversity conservation," says Fairweather. "They can harbor surprising amounts of biodiversity and they can also provide urban populations

vide urban populations with ready access to nature."

Cottontail rabbit



No matter where you live in Virginia, there is sure to be a park or natural area nearby. Richmond's James River Park, for example, spans 550 acres and is home to bald eagles, river otters, bullfrogs, and more. All this, in the heart of one of Virginia's biggest cities. The James River Park is just one example of Virginia's wealth of wild spaces in our urban and suburban developments. Most of the larger cities and towns maintain a parks and recreation department, and many state and national parks are located within easy driving distance of our cities and towns.

Finding an urban or suburban park near you may be as simple as flipping through a few back issues of this magazine. In June 2010, for example, *Virginia Wildlife* ran a profile on a park in Hampton Roads, and two Northern Virginia parks were recently profiled as well. An internet search

Virginia's Vild! Live Wild! Grow Wild!

will bring more options, and several organizations maintain helpful lists of parks and open spaces.

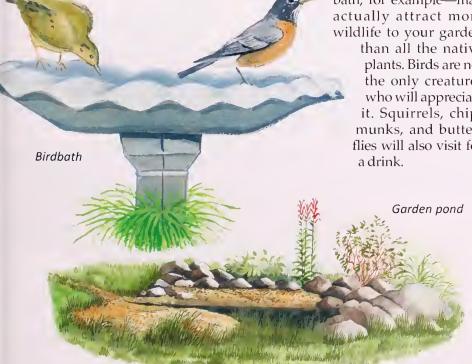
Invite Wildlife into Your Yard

Welcoming wildlife into your backyard can be as simple as planting a native shrub or adding a small water feature. Food, water, and shelter are the three main ingredients for any successful wildlife habitat, no matter how small or urban. No yard? A few planter boxes and a small bird bath are all you need to attract some butterflies and song birds. Choose the right flowering plants, and you may even be visited by ruby-throated hummingbirds.

Native plants are the best way to provide food for wildlife in your yard. It's easy to find plants that suit your palette and attract the animals you'd like to welcome. Cheerful purple coneflowers, for example, add a splash of purple to the garden and tempt butterflies with their nectar. The mature seeds are also a favorite treat of goldfinches. Butterfly weed is another great way to attract butterflies, and blueberries, viburnums, and dogwoods all invite flocks of birds to feed on their bright fruit. And—bonus—because native plants are already adapted to Virginia's climate, they require much less care than non-native shrubs, flowers, or trees. Visit the DGIF website for a list of recommended native plants: www.dgif.virginia.gov/habitat/ native-plants-for-wildlife.asp.

A clean and reliable source of water can be hard to find in developed areas. Adding a small water

> feature—a shallow bird bath, for example—may actually attract more wildlife to your garden than all the native plants. Birds are not the only creatures who will appreciate it. Squirrels, chipmunks, and butterflies will also visit for a drink.





A small pond or container water garden will attract frogs, toads, and newts, and may support a small population of fish or aquatic native plants, DGIF Habitat Education Coordinator Carol Heiser observed that during the first year after installing her own water feature (only 5'x3'), "Green frogs and leopard frogs began visiting. Within a few more



years, I was pleasantly surprised to see spotted salamanders showing up to lay their eggs."

Shelter is the final necessity for any wildlife-friendly yard or garden. Food and water will attract visitors, but a safe place to sleep and raise babies is essential if you want your wild neighbors to call your backyard home. Native plants are an excellent first step here—shrubs and small trees are especially well suited for many birds that build open nests. And a few appropriately sized bird houses will provide cavity nesters with a home as well. Low-growing plants and small cavities offer safe hiding places for toads and frogs, chipmunks, and other grounddwelling creatures. A broken flower pot set on its side is the perfect home for a toad, for example. Whatever you choose, remember that traditional grass-covered lawns really

offer no shelter for wildlife.

This is good news for anyone who does not relish Saturdays spent mowing.

Helpful Websites

Falcon Watching

http://falconcam.tumblr.com

Visiting Parks and Open Spaces

- Virginia Birding and Wildlife Trail www.dgif.virginia.gov/vbwt
- Virginia State Parks www.dcr.virginia.gov/state_parks
- National Wildlife Refuges www.fws.gov/refuges
- National Park Service www.nps.gov

Creating Habitat

- DGIF Habitat at Home[®] www.dgif.virginia.gov/habitat
- National Wildlife Federation www.nwf.org/Get-Outside
- Urban Wildlife Sanctuary Program www.hsus.org/wildlife
- Audubon at Home www.audubonva.org/index.php/ audubon-at-home
- Loudoun Wildlife Conservancy, Frog Pond www.loudounwildlife.org/ HHFrogPond.htm



The more wildlife habitat you add, the less lawn you will need to mow.

Several organizations provide excellent tips for creating a wild oasis in urban and suburban yards. Check out the websites listed for additional tips and information.

Native plants, water, and shelter: These are the ingredients for a wildlife-friendly backyard. Space is less important. Even the smallest yard can welcome a surprising variety of wildlife. At his townhouse "in a pretty urban part of Arlington," Fairweather tends a tiny pollinator garden and pocket meadow, a delightful example that nature and wildlife can be enjoyed at even the smallest of scales. Fairweather's mini-meadow is home to "many species of bees, butterflies, beetles, and various spider and predator insects," and now grasshoppers. The grasshoppers are especially welcome, says Fairweather, who considers them an essential resident for any meadow. "Now I feel justified calling my little plot a meadow."

Act Wild

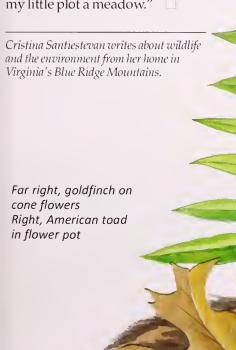
Here are three ways to share your appreciation of urban-dwelling wildlife:

1. Summer is a great time for a family visit to some of Virginia's urban parks and natural places. You may be surprised by the variety of plants and animals you find.

2. Create a wildlife-friendly habitat in your own backyard. The more structures provided, the better. A blend of native food sources, protective cover, and water offers the best conditions to tempt your wilder neighbors to visit.

3. Share your wild adventures with your friends and family. Children are especially interested in learning about the animals and plants that live in our cities and neighborhoods.

Remember that wild animals are wild, no matter how urban their address may seem. Watch wildlife from a distance and try to avoid disturbing animals or their habitats. When in doubt, refer to DGIF's tips for responsible wildlife viewing at: www.dgif.virginia.gov/wildlifewatching.



AUGUST 2010







Kestrels take advantage of natural tree cavities to nest or, in this case, dine on their prey.

Kestrel Facts

An ecologically versatile species, kestrels can be found anywhere there is sufficient food and raised perches from which to scout their next meal. Though kestrels are found in urban areas, generally they are a bird of the open countryside. Their piercing killy-killy-killy rings out across fields,



meadows, and woodland edges where they hunt in the short vegetation. They nest in natural tree cavities, in abandoned woodpecker holes, in depressions in a bank or cliff, and in the eaves of buildings. Despite the size difference, kestrels successfully defend their territory against larger raptors such as Cooper's hawks, red-tailed hawks, Northern goshawks, and barn owls. However, they have often appeared in the stomachs of those birds!

This robin-sized bird is easily distinguished in flight by its small size, long tail, and pointed wings—a combination that makes it an agile flyer. The kestrel is 10 to 12 inches in length, with a wingspan of 21 inches. Other behavior clues include hovering while hunting, tail pumping while perching, and head-bobbing, which is thought to help it judge the distance to perceived prey. The male's slate-blue wings and rufous back and tail make him more colorful than the

female. Her plumage is a dull brown and a less striking blue-gray. Both sexes have a mustached black-andwhite face pattern. Dark spots toward the back of the head, resembling "eye spots," might serve to deter attacks from predators by confusing or startling them. (Similar eye spots on some butterflies and caterpillars are thought to serve the same purpose.)

In addition to being the smallest, the American kestrel is also the most widespread of North American falcons, occurring throughout most of North America. In Virginia, where winters are mild, kestrels remain year-round, while those breeding farther north may migrate to southwestern Texas and southern Florida. Some continue on to Mexico and even as far as South America. Every fall, heavy concentrations of kestrels use the Appalachian ridge tops as a migration corridor to the winter destinations.



A beautiful bird, the American kestrel often captures its prey on the ground, as shown here.

Concern Over Future

Despite the fact that the kestrel is one of our most common raptors, red flags of concern are emerging. In recent years, migration counts reveal a significant decline in falcon populations in the Northeast and Mid-Atlantic. Autumn migration "hawkwatch" counts in Cape May, New Jersey, are down more than 40 percent below the 30-year site average for the bird. Similarly, counts at Hawk Mountain, Pennsylvania, during the same time span are down 30 percent. But even more troubling are the precipitous annual drops occurring over the last decade: 9.2% at Lighthouse Point, Connecticut; 4.5% at Cape May; 4.8% at Hawk Mountain; and a staggering 11.3% annual decrease in spring counts at Fort Smallwood, Maryland.

Dr. Chris Farmer, a senior research biologist at Hawk Mountain Sanctuary in Orwigsburg, Pennsylvania,

has been studying kestrels for years and is concerned about the recent drop in numbers. "To put this into perspective, if these rates of decline continue, they will lead to a 50 percent decrease in kestrel counts in 8 years at Lighthouse Point, 15 years at Cape May, 14 years at Hawk Mountain, and 6 years at Fort Smallwood."

Rarely does just one factor cause such a decline. In the last few decades, open areas used by kestrels for foraging have been developed or returned to forest, resulting in less available habitat, not only for the kestrel, but also for other "open country" birds such as the Eastern towhee, another species in decline in Virginia. As habitat is lost, so are the dead trees, or snags, that provide nesting cavities for secondary cavity-dwellers like kestrels and a host of other birds and mammals that use abandoned woodpecker nesting holes. Increased predation by the

@Maslowski Photo



Kestrels will nest in artificial boxes; consider installing before their return to Virginia in March.

larger Cooper's hawk, a chief predator of the kestrel and a species whose populations are rising, is also thought to be a factor.

Farmer says pesticides can be added to the list of possible suspects. Although there is no evidence of a current widespread contamination of kestrels from pesticides, there is also no intensive surveillance for such contamination. Kestrels are associated with the agricultural landscape and, along with hawks and owls, can become poisoned by eating mice and other animals that have been exposed to such chemicals. "Although we don't know the extent of the harm they pose to kestrels, we know that pesticides are widely used and kestrels are coming into contact with them." Farmer has seen two cases recently of kestrels poisoned by pesticides. Because the carcasses are relatively small and therefore unlikely to be found, he wonders how many others have died or suffered reproductive failure from toxic substances used on lawns and crops.

Lend a Helping Hand

Just as conservationists helped the Eastern bluebird make a remarkable comeback, artificial nest boxes can help to replace the disappearing, natural cavities used by kestrels. For directions on how to make a nest box and other ways to make your property attractive to kestrels, see the sidebar below.

As habitat is lost, so are the dead trees, or snags, that provide nesting cavities for "secondary cavity-dwellers" like kestrels and a host of other birds and mammals that use abandoned woodpecker nesting holes.

Beyond the good feeling of helping out a declining species, there's another reason to lend a hand to the kestrel. Because of its penchant for feasting on crop pests like grasshoppers, beetles, caterpillars, and moths, this little falcon is a valuable ally to gardeners and farmers. And having it around is a sign of environmental health: As a top-of-the-food-chain predator, the kestrel's presence indicates that the insects, amphibians, and small birds that it needs are plentiful and pesticide use, probably low.

Although the kestrel faces daunting challenges, the distress call has been heeded early. We can take action to maintain this beautiful species as one of our most common North American raptors and is a valued member of Virginia's native wildlife.

Jo Ann Abell has written extensively about nature for the past 20 years and can be reached at joannabell2@comcast.net.

©Masłowski Photo

Tips For Making Your Property Attractive to American Kestrels

- Maintain large, pesticide-free, open areas with herbaceous vegetation no more than a few inches tall to provide good foraging habitat.
- Leave snags for woodpeckers to drill their nest holes and provide future nesting cavities for kestrels.
- Before you decide to use a pesticide, consult the Department's fact sheet: www.dgif.virginia.gov/habitat/landowners/ infosheets/wildife-and-pesticides.asp. Also check out Beyond Pesticides (www.beyondpesticides.org), a non-profit that offers a wealth of information on pesticides, their effects on humans and the environment, and safer treatment alternatives.
- Install an artificial nest box to a tree trunk, pole, or barn eave. By March, before kestrels return to begin establishing nesting territories, install the nest box at least 12 feet off the ground in an area with an acre or more of open habitat away from songbird feeders. Keep in mind that kestrels are sensitive to disturbances early in the nesting cycle, so watch for signs of activity at the nest box from a distance. Directions for building can be found on the West Virginia Naturalist Outdoors website: http://www.gcmna.com/Newsletters/WVOutdoors10-4.html.





2010 Outdoor Calendar of Events

Unless otherwise noted, for current information and registration on workshops go to the "Upcoming Events" page on our website at www.HuntFishVA.com or call 804-367-7800.

August 10: Flat Out Catfish II, Pony Pasture, James River, Richmond.

August 12, 14, 19, 21 & 24: An Introduction to Photographing Butterflies and Other Cool Bugs, with Lynda Richardson at Lewis Ginter Botanical Garden. Call (804) 262-9887 X322 or go to www.lewisginter.org or www.lyndarichardson photography.com.

August 13–15: Virginia Outdoor Sportsman Show, Richmond; www.sportsmanshow.com.

August 20–22: *Mother-Daughter Outdoors Weekend,* Holiday Lake 4-H Center, Appomattox.

August 25, September 1, 8, 15, 22, 29, October 6, 13: The Photo Essay—How to Tell a Story in Pictures with Lynda Richardson at UR's School of Continuing Studies. Go to www.lynda richardsonphotography.com or go to http://scs.richmond.edu/ and look under Personal Enrichment and then Film & Photography.

August 28: Jakes Event, Page Valley Sportsman's Club; contact Art Kasson at (540) 622-6103 or artkasson@yahoo.com.

September 9, 11, 16, 18, 21:
Photographing Colors, Patterns &
Textures with Lynda Richardson at
Lewis Ginter Botanical Garden.
Go to www.lewisginter.org or
www.lyndarichardson
photography.com or call
(804) 262-9887 X322.

September 11–12: *Eastern Regional Big Game Contest*, www.vpsa.org.

September 25: *Youth Deer Hunting Day,* (ages 15 and younger).

September 25–26: *Western Regional Big Game Contest and State Championship,* www.iwla-rh.org.

October 7–10: Eastern Shore Birding and Wildlife Festival, Cape Charles.

October 16: Youth Fall Turkey Hunt Day, (ages 15 and younger).



The 2010 Duck Stamp featuring artwork by Guy Crittenden is now available.



A new, South Holston Reservoir fishing license became available in July, allowing the holder to fish both Virginia and Tennessee waters. The special \$21 permit is valid for one year from purchase date, but does not cover trout.

Quail Action Plan

Department staff are working with a broad range of public and private partners to restore critical upland habitat needed by the bobwhite quail to thrive. Among the many initiatives underway are:

- Establishment of early succession wildlife focus areas across the state, in concert with the work performed by Soil & Water Conservation Districts in Virginia;
- Wildlife professionals assisting with delivery of USDA Farm Bill programs to landowners that benefit quail and other, early succession wildlife species; and
- Establishment of demonstration areas that showcase technical tools put in place to effectively manage for quail.

For more information about the quail plan, go to: www.HuntFishVA.com/wildlife/quail/action-plan/ quail-action-plan.pdf

To contact a private lands wildlife biologist: marc.puckett@dgif.virginia.gov



by Beth Hester

A Game Warden's Field Notes III by Jon Ober 2009 Mariner Publishing www.marinermedia.com/ bookstore.html

Soft cover with black & white illustrations \$16.95

"I've looked at being a Virginia Game Warden as a privilege, a fulfilling tradition begun in 1916. Relatively few men and women have done what we do now, working for the public, and for the wildlife in our state while putting our lives on the line to protect our natural resources...! fully realize and appreciate the opportunity we have as conservation officers to be working outside in the elements. We get to work in places that many people wait all year to visit."

- Jon Ober

Jon Ober has been a Virginia game warden, or conservation police officer as they are now called, for over twenty-four years, and he considers his occupation to be more than just a way to earn a paycheck. Being a conservation police officer (CPO) is a way of life. He knows firsthand that you can tell an awful lot about a person by the way they behave when they think no one is watching, and during Ober's tenure with the Department, he has been privy to the best and the worst behavior that denizens of Virginia's wild places have to offer.

This new book gathers the best stories from Ober's first two volumes, plus all-new experiences from his own journals. These honest, true-life adventure stories and personal reflections are by turns funny, poignant, and sometimes hair-raising. They also make for an honest, and mighty fine read.

Ober knows how to tell a tale, and without extraneous embellishment the reader feels as if he or she were

right behind him, navigating through difficult terrain, hard on the heels of some duck poacher, inebriated deer hunter, trespasser, or other flagrant scofflaw. The stories seem so real that you can almost hear the ominous, heart-pounding strains of Mancini's theme song from *Peter Gumn* playing in the background. As a bonus, throughout the book Ober inserts well-placed nuggets of hunting history and ethical asides without seeming either preachy or didactic.

Apart from the excellent entertainment value of these personal narratives, there are also interesting behind-the-scenes glimpses of how CPOs train to be mentally and physically prepared to face the unexpected. After all, as Ober writes: "Most of the time game wardens are working by themselves in remote areas, in close proximity to armed people who may not want them around."

So the next time you roll up on a conservation police officer, make sure to shake his or her hand and thank them for a job well done. After reading this book, you'll better understand what motivates these guardians of Virginia's wild places. In working to protect our precious natural resources, they sometimes, collaterally, help to protect us from ourselves.

Hunter Skills Weekend

The Virginia Hunter Education Association, in conjunction with Holiday Lake 4-H Educational Center and the Department of Game and Inland Fisheries Hunter Education Program, conducted a Hunter Skills Weekend for the public on May 14-16, 2010. The event was filled to capacity with 96 participants, who learned techniques needed to be safe and proficient while hunting. The weekend was designed to help "bridge the gap" between the basic hunter education course and actually getting out into the field to hunt.

As one participant in the tree stand class stated, "I thought I was safe and doing things correct, but I was not and learned so many new, proper ways to be safe in the stand."

A parent said of the rifle class, "I

liked the way the instructors taught safety. Hope my son remembers everything. They were great."

One young particpant in the turkey hunting class summed up the weekend, "It was AWESOME!!!"

The second Hunter Skills Weekend will be held at Holiday Lake 4-H Educational Center on **October 1-3**, **2010**. Anyone interested in participating should contact the 4-H Center by phone at 434-248-5444 or visit their website at http://holiday lake4h.com/.



Long-time hunter education instructor Danny Bartee monitors a student for safety and proper technique during the shotgun class at the Hunter Skills Weekend.



We are pleased to share here the winning essay in the VOWA 2009 Youth Writing Competition, High School Division.

Phragmites Australis

by Grace A. Perkins

Phragmites australis. I could hardly pronounce it, and I knew I did not want to spend my summer vacation studying it. However, the Chesapeake Bay Governor's School for Marine and Environmental Science requires a two-year investigative project. Having learned to curse P. australis' very existence in class, I decided a relevant, yet simple study would be a comparison of the effects of this invasive, non-native marsh grass versus those of a native grass on the fish populations of a Chesapeake Bay salt marsh.

My first mistake was believing this would be a leisurely undertaking. Field studies are intense, especially those dealing with tides. The second mistake was choosing a site forty minutes from my house. Tide cycles must be Mother Nature's practical joke. To cast my seine nets at low tide, I rose before sunrise and reached the marsh by daybreak. Then I returned home and, six hours later, drove back to the marsh to pull in the nets. While my classmates woke up at noon, loaded the toaster with Pop-Tarts, and logged onto

Facebook, I was in my maroon pickup truck, dressed in an old t-shirt, shorts, and water shoes (the ugliest article of clothing ever invented) on my way to wade in cold, brackish water. Despite weeks of sinking up to my knees in the darkest, slimiest mud imaginable, slapping at mosquitoes, and watching out for spiders and cottonmouths, I repeatedly reeled in empty nets in the *P. australis* marsh. It was disheartening, but I redesigned my experiment and it has since produced meaningful results.

This summer, I learned firsthand how *P. australis* can devastate a marsh. As importantly, however, I experienced the Chesapeake Bay in a new way. Although I have grown up in a small, rural area where many of my classmates' families depend on the menhaden and oyster industries, I only knew the bay through tubing and jet-skiing. For ten years, I have lived a short distance from the waterfront, but until this summer, I had never experienced its natural rhythms and beauty.

I can now say I have watched the pinks and oranges of the rising sun paint the sky over Rockhole Creek. I have cast a net in cool water up to my ankles and caught marsh killifish and fiddler crabs. A blue heron has shared the mornings with me and, at the time, we seemed like the only living things in the world. I have driven with the windows down, salt air blowing my hair around, and big

band music from the only available radio station turned all the way up. I felt infinite, like I was a part of something larger than myself.

This project taught me that science is not always the neat, controlled lab experiments conducted in school. It can involve hard, even smelly, work. Experiments may require revision or redesign, and they do not always produce the intended results. These unlooked-for findings can lead to new ideas and experiences. Sometimes, unexpected results become the most important lessons of all.

Congratulations to Grace Perkins, who recently graduated from Lancaster High School in White Stone and is headed to The College of William & Mary as a Monroe Scholar this fall. The annual Youth Writing Competition is sponsored by the Virginia Outdoor Writers Association, Inc.

Don't Forget! Mandatory Duck

Mandatory Duck Stamps & HIP



Il hunters who plan to hunt doves, waterfowl, rails, woodcock, snipe, coots, gallinules, or moorhens in Virginia must be registered with the Virginia Harvest Information Program (HIP). HIP is required each year and a new registration number is needed for the 2010-2011 hunting season. To obtain a new HIP number, register online at www.VAHIP.com or call 1-888-788-9772.

In addition, to hunt waterfowl in Virginia hunters must obtain a Federal Duck Stamp and the Virginia Migratory Waterfowl Conservation Stamp. The annual Migratory Waterfowl Conservation Stamp can be purchased for \$10.00 (resident or non-resident) from VDGIF license agents or from the Department's website. To request collector stamps and prints, contact Mike Hinton by email at ducks@hintons.org.





Congratulations to Andrew Gionfriddo, 11, for his first turkey taken on Youth Day 2010. Andrew shot the bird at 27 yards as his father sat next to him and his Uncle John sat 40 yards behind and called. The gobbler weighed 19.5 pounds, had a 10" beard and 1" spurs that were surprisingly sharp. The bird was harvested in Loudoun County on private property. While Virginia residents, Andrew and his family currently live in London, England. His family had decided to visit family over the Easter break, in no small part due to the Youth Day hunt during that time. The turkey was way better than any Easter bunny!



I n the April 2010 *Off the Leash* column, the nice editor chose to publish some of your questions about dogs that can spell, hunting and falling from trees, and shooting vs. ballet lessons. Although I answered as best as I could, it seems some of you have been left with more questions than answers about a great number of things. As always, I am here to help out.

Dear Luke, When is the best time to introduce my retriever puppy to water retrieves? Mike T., Wakefield

Dear Mike,

Always try to make anything you introduce to your pup a positive experience. If you get your pup in the dead of winter, wait until the weather and—more importantly—the water is WARM. One way to introduce your pup to water is by taking the training dummy you are using on land and tossing it about ankle-deep (the dog's ankle) into the water. If you have an enthusiastic retriever, he will probably go right to the dummy and bring it back. Give lots of praise. Then throw the dummy in chesthigh water (the dog's chest) and gradually increase the depth. Give lots of praise. Stay close to the water's edge just to reassure your pup when he has to start swimming. Do not overdo this in the beginning and, if your pup is somewhat reluctant, be patient. I know you humans have been "in over your heads" in many areas and not once did you find it pleasant. Once your retriever has gained confidence in his swimming ability, you won't be able to keep him out of the water.

Dear Luke,

I have a new golden retriever puppy. I want to socialize her with other people but I work long hours and do not have a lot of time to spend with her when there are a lot of folks around. How can I get her used to people?

Lindsey S., Manakin-Sabot

Dear Lindsey,

While the weather is still cool, take your puppy in the car to the nearest grocery store when you have to do a little shopping. Station yourselves in sight of the foot traffic going into the store. Make sure you do not stand so close to the store as to invite a crowd that will want to pet your pup. Your puppy could become overwhelmed with a lot of unwanted hands coming at it from all directions. Have your pup sit at your side and give her the command to stay while you have her on lead. If she barks or wants to go toward people entering the store, correct her. If she remains sitting, give her a treat and praise her. Then walk past the store entrance a few times while she is still on her leash and have her sit again. Give her a treat and praise. After completing that exercise a few times, pick up your puppy, walk closer to the store entrance, and stand there for a bit. Nothing draws people like a puppy and some folks will want a closer look. By holding your puppy, she will feel more secure when those people want to have a closer look. This form of training does a number of things. It helps socialize your dog; it helps you practice your sit, stay, and heel commands; and if done correctly, it will reinforce the idea to your pup that riding in a car can be a good thing.

Dear Luke,

My pup (8 months old) is very friendly, but sometimes he is hard to control and sometimes tries to pull me instead of walk with me. He also has a tendency to bolt when I let him out of the car. What should I do?

Walter S., Amherst

Dear Walter,

There are several leads and harnesses on the market that restrict a dog's pulling and offer you greater control when walking together. If you and your dog have not enrolled in an obedience class, do so right away. Your pup may think he is the one who makes the rules, and that notion should be corrected immediately. Some exuberance in a pup is to be expected but, unless checked, it can get out of hand and cause injury. Teach your dog the "WAIT" command and enforce it every time the two of you go through a door or down steps, or when opening a car door to let him in or out. Your dog must learn he does not go anywhere with you unless you say so. The sooner he learns who's in charge, the better off you both will be!

I hope these small training tips have been helpful in building a safer and stronger relationship with your dog. I have learned that dog-human relationships are very similar to human-human relationships. There is always one person who *thinks* he is in control, and there is another person who *knows* he is not!

Keep a leg up, Luke

Luke is a black Labrador retriever who spends his spare time lumiting up good stories with best friend Clarke C. Jones. You can contact Luke and Clarke at www.clarkecjones.com.

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Telling a Story with Pictures

S hooting fabulous wildlife photographs can be challenging and fun, but have you ever thought about going beyond the single image? What I'm talking about are photo-essays, also known as picture stories.

By comparison, an individual photograph is very easy to capture. When I first started out as a professional photographer, an editor at *National Geographic* commented on my portfolio, saying, "Any weekend photographer can capture a stunning collection of photographs. It is the one who can tell an engaging story with great imagery that I'm looking for. I want to see picture stories from you!"

It was advice that I gratefully received and have used ever since.

Take a look at magazines like *National Geographic, Smithsonian*, and this one. These publications specialize in stories that are accompanied by photographs. As you flip through a magazine, what catches your eye? The photos, right? And what makes you want to read the story? The topic, of course, but the photographs play a key role in drawing you into the text.... or at least they should!

Now how does one shoot a photo-essay? First, choose a topic that means something to you. Then, research the heck out of it. And finally, shoot it from your heart! Use every lens you own (and even borrow some). Shoot at different times of the day and under different lighting conditions and at different angles. Use flash and any other techniques that you feel will add interest to the final photographs. Be sure to shoot scene setters (also called openers), as well as images that capture details, principal characters, climac-



While on assignment for Smithsonian, I captured this detail shot of a Venus flytrap with a decomposing spider in its maw for a photo-essay about the insect. © 2010 Lynda Richardson

Image of the Month



Congratulations go to Richard Cox of Bumpass for his very sharp and close up photograph of a redbellied woodpecker visiting a suet feeder. Canon EOS 40D digital camera, Canon 300mmL IS lens with a Canon 1.4X, ISO 400, 1/1250th, f5.6. Great shot, Richard!

tic moments, and a great ending. Include action shots as well as the obligatory "point pictures," which are necessary for the story but not always that exciting.

Photo-essays can be very powerful. In recent years, many organizations and individual photographers have used photo-essays to further their causes. The International League of Conservation Photographers (ILCP) and the North American Nature Photography Association (NANPA) have encouraged members to participate in various story-telling projects around the world. Whether trying to bring attention to an endangered species in Africa or an environmental issue in their own backyard, these passionate photographers have taken on photographic essays that have made a difference.

If you want to broaden your photographic skills, try shooting a photo-essay. If you're lucky, maybe you can make a difference too. Good luck and happy shooting!

* * *

For more information on ILCP check out www.ilcp.com; for NANPA, check out www.nanpa.org.

You are invited to submit one to five of your best photographs to "Image of the Month," Virginia Wildlife Magazine, P.O. Box 11104, 4010 West Broad Street, Richmond, VA 23230-1104. Send original slides, super high-quality prints, or high-res jpeg, tiff, or raw files on a disk and include a self-addressed, stamped envelope or other shipping method for return. Also, please include any pertinent information regarding how and where you captured the image and what camera and settings you used, along with your phone number. We look forward to seeing and sharing your work with our readers.



In the Eye of a Whale

A arine mammals like whales and dolphins, and the ocassional harbor seal or manatee, frequent the coastal waters of Virginia. I try to remember that this was their home first and we are simply visitors they have to tolerate.

About seven years into my long career with the U.S. Coast Guard I had an awesome encounter that deepened my appreciation for marine mammals and gave me a new respect for these unique creatures. It was summertime and I was stationed on board the Coast Guard Cutter, Mustang, home ported in Seward, Alaska. We were on a patrol in the Prince William Sound and anchored in a cove one Sunday morning when I was tasked with doing a small boat patrol from the ship to see if there were any fishing vessels in the area. Our small boat was a 5-meter (16.4foot) rigid hull inflatable boat.

George, a kid from Arkansas, and I were just tooling around at clutch speed in a small body of water in a mountain pass, watching some Orca whales in the distance. Suddenly I had one of those strange feelings that caused the hair on the back of my neck to stand up. So, as I always did while on a boat when I had that feeling, I put the engine in neutral and started to drift a bit to survey the area around me. I caught something out of the corner of my eye deep in the water and looked toward the back quarter of the boat when, suddenly, three gigantic Orcas emerged straddling our boat—two on one side and one on the other. I recall that the pair was a bit smaller than the single one, but they all dwarfed our boat by 8 to 10 feet!

As they surfaced, one spouted and sprayed us with frigid Alaskan water. It seemed it was a gesture to notify us of their presence and maybe to poke fun at us a bit in our little orange boat on their turf. They slowly lumbered beside us for what seemed an eternity and expertly matched their pace to the boat's drift. Soon after, the biggest Orca rolled slightly to the side to get a good look at us. According to SeaWorld, killer whales have acute vision both in and out of the water.

It was at the moment I stared an Orca in the eye that I realized I wasn't only looking at a whale; I was being handed the privilege of a lifetime to have this magnificent creature choose me for sharing an invaluable lesson. I can only imagine the look of amazement George and I must have had on our faces feeling as though we were staring into this whale's soul. I do recall that I could see the reflection of our boat in the whale's eye—which quickly put into perspective my true place in this humbling situa-

tion. I was merely a guest here, and I was able to share in an unbelievable gift that one experiences *only* on the water.

It seemed just a blink of an eye, and they gracefully dove away. George and I sat there speechless, watching them descend into the cold and clear water, feeling that we were truly honored.

Please remember that marine mammals are susceptible to severe injury from propeller strikes and that harassing marine mammals is illegal under the Marine Mammal Protection Act. Furthermore, boats can sustain extensive damage and boaters can be injured by collisions with these mammals. Slow down if you see or suspect their presence in the water.

Until next month and as always: Be Responsible, Be Safe, and Have Fun!

Tom Guess, U. S. Coast Guard (Ret.), serves as a statewide coordinator for the Boating Safety Education Program at the DGIF.



AUGUST 2010



by Ken and Maria Perrotte

Edible Bait

any favored baits for both salt- and freshwater fish also find themselves gracing dining tables worldwide, served as delicacies, as holiday and party favorites, or as basic staples of life.

Dining on insects and worms—considered exotic by Western standards—is fairly commonplace in many parts of Asia and Africa. Intentionally consuming bugs, insects, and worms is a practice known as entomophagy.

Those crickets and grasshoppers you use to catch bluegill make, supposedly, tasty and crunchy dry roasted snacks. Dip them in chocolate for extra panache or crush and blend with cookie dough for "chocolate chirp" cookies.

Earthworms and mealworms are bait favorites world-wide. According to a recipe for "Earthworm Chow" at Cooks.com, boiled and then baked into an onion and mushroom sauce they are great served over noodles. Whether store bought as food or gathered in the wild, make sure any worms are purged for a few days before cooking.

Many saltwater baits, such as shrimp, are obvious dining favorites. Squid makes delicious calamari. Chowder clams cut into strips are popular bait for some saltwater species. Smaller clams can be smoked or steamed, among other cooking styles.

Then there's crawfish, common bait for many species and the inspiration behind countless soft plastic and crank bait lures. Ken could eat crawfish ettoufee once a week, and a good old crawfish boil is a party waiting to happen.

No matter which bait you choose to cook, look for things labeled *for human consumption*. The stuff sold specifically for bait doesn't always make the grade. Here are a few non-exotic, safe bets.

Bacon-wrapped Chicken Livers (not just for catfish)

- 48 wooden toothpicks
- 2 tablespoons olive oil
- ½ pound chicken livers, cleaned and cut in half or large bite-sized pieces
- ½ pound bacon slices, cut in half
- ½ teaspoon cracked black pepper

Soak toothpicks in water. Cook bacon until limp (a minute or two in the microwave works). Sauté livers in oil until lightly browned. Season with pepper and wrap with bacon, securing with toothpick. Bake at 425° until bacon

and livers are thoroughly cooked (about 10 or 15 min.). If desired, water chestnuts or jalapeño pepper slices can be wrapped with the livers.

Makes 4 dozen, but recipe can easily be adapted to yield any number.

Steamed Clams with White Wine Dipping Sauce

- 3 dozen clams, washed
- 5 tablespoons butter, divided
- 1 clove of garlic, chopped
- ½ teaspoon white pepper
- 1 tablespoon dry white wine
- ½ teaspoon chopped parsley

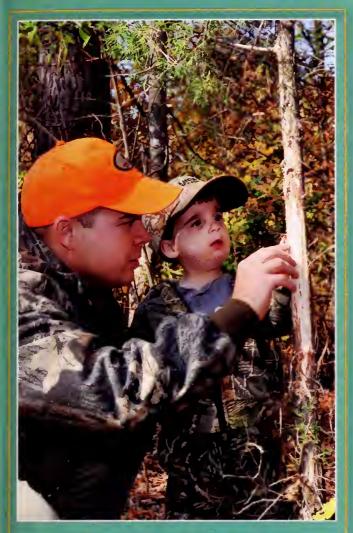
Make sure clams are cleaned well with no grit outside. Cleaning with a potato brush under cold, running water works well. Add about an inch of water to a pot with a tight fitting lid and bring to a boil. Add the clams and steam just until they open.

While clams are steaming, sauté chopped garlic in 2 tablespoons of butter until soft. Don't allow the garlic or butter to brown. Add white pepper, parsley, and white wine. Simmer for 2 minutes; then add about 2 tablespoons of liquid from the steaming pot, being careful not to incorporate any grit that may be at the bottom of the pot. Simmer a few more minutes and add the rest of the butter, stirring to melt it. Discard any clams that don't open, and arrange others on a platter. Pour the dipping sauce into a cup and serve.

Fried Calamari (try the tentacles!)

- 1 pound fresh squid (tubes and tentacles), rinsed and sliced about ½ inch wide
- 1 cup buttermilk
- 1½ cups flour (all purpose)
- 1 teaspoon each, salt and black pepper
- 1½ teaspoons paprika
- ½ teaspoon cayenne pepper Vegetable oil

Mix flour and seasonings, soak squid in buttermilk and dredge in seasoned flour. Heat about ½ inch of oil in frying pan. Fry calamari for 3 or 4 minutes until golden brown. Do not overcook or calamari will get tough. Drain on paper towels and serve with a spicy marinara sauce. Or, get adventurous and Google "calamari dipping sauce." There's no shortage of options, from Asian to Greek. Just adjust the spices in the batter to those in the dipping sauce.



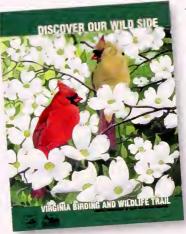
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